

operates in a corresponding manner. The glide part **399b** and a counterpart **399f**, fixed to the lower part of the hinge beam, function pairwise in a corresponding way. To save space, the pair of counterparts **399c** and **399e** as well as the pair of counterparts **399d** and **399f** are placed on opposite sides of their glide parts.

[0047] The unfolding mechanism **38** comprises arms **382** and **383** arranged on a joint longitudinal shaft journal **381** and extending towards the parts **6**, **9**. The pin **381** and the arms **382**, **383** are allowed to move in the transverse direction, towards the parts **6**, **9** in relation to the beam **391**. The arms **383** and **382** are fixed to the beam **394** and to the hinge beam of the housing part **9** by means of a hinge pin **385** and a hinge pin **384**, respectively. The parallel rotation axes in the longitudinal direction of the hinge pins **384**, **385** are placed on opposite sides of the axis C, and each rotation axis on the side of the housing part to which also the hinge pin is fixed. The rotation axes are slightly closer to the part **2** than the axis C. The pin **381** is also provided with a tensioned torsional spring **388** which is continuously effective between the arms **382**, **383** and tends to turn them around the pin **381** towards each other and to be parallel. Thus, a torque force is simultaneously produced, tending to turn the hinge pins **384**, **385** towards each other around the rotation axis C. The hinge pins **384**, **385** are turned so that the direction of their rotation axes is maintained. This, in turn, produces a torque effective on the housing parts **6**, **9** to make them open when ejected, wherein when they are pushed in, the grooves **395**, **396** are supported to the ridges **42**, **43** of the housing part **2**. When turned, the distances between the rotation axis of the hinge pin and the axis C on one hand and between the rotation axis of the hinge pin and the pin **381** on the other hand remain constant, with the result that the position of the pin **381** in relation to the beam and the handle part **2** will vary. Therefore, the pin and the arms are fitted in a movable manner in a nest in the middle part of the beam **391**. Further, the ends of the pin **381** are provided with fitting parts **386** and **387**.

[0048] The electrical components of the PDA/CMT device, such as the circuit boards, the transceiver fitted on a circuit board with its electrical circuits and antenna, as well as the control circuits for controlling the displays and the whole device, are arranged in free spaces left between the housing parts. The keys and the control buttons are in an electrical contact with the control circuits. The operation of the whole device is controlled by a control system operating under a control program stored in the memory means and arranged for controlling the above-described device in a desired manner. The design, manufacture and placement of the necessary components as well as the arrangement of the functions can be selected by anyone skilled in the art according to the requirements at the time. In the selection, it is possible to apply technology and methods known as such. The requirements depend on e.g. the different properties of the device, such as camera or music functions, the capacity of the necessary memory means, the connections to other devices, and the network or networks used for wireless communication, such as a GSM mobile communication network based on a cellular network and/or a short-range RF or IR network. The device with its antenna is arranged to operate in a desired, preferably broadband communication network, e.g. to make the transfer of video calls possible.

[0049] The invention has been described above in an application in connection with an advantageous communication device, to which it is particularly well suited, but on the basis of the description, it is obvious for anyone skilled in the art to apply the invention also in connection with other electronic devices within the scope of the appended claims. The device can naturally be also used with other alternative hand grips and in other positions. The presented grip and use position thus provide an example of a preferred way of holding the device of the invention, wherein the keys of the handle part are placed in such a way that at least this grip and the use of several different functions would be possible and easy.

1. Portable, foldable electronic device (1) comprising an opened and closed use position, comprising at least:

a first housing part (6) comprising at least an inner wall (62),

a second housing part (9) comprising at least an inner wall (92),

a hinge mechanism (36) arranged to fold the first and the second housing parts (6, 9) in the closed position in relation to each other for a first use position, wherein the inner walls (62, 92) are against each other, remaining between the housing parts (6, 9), and in the opened position for a second use position, wherein the inner walls (62, 92) are adjacent to each other, and wherein the device (1) can also be used on the side of the inner walls (62, 92),

characterized in that the device (1) also comprises at least:

a third housing part (2), to which the first and the second housing parts (6, 9) are attached by means of said hinge mechanism (36) in such a way that they are simultaneously folded in relation to the third housing part (2) as well, when the device (1) is opened and closed.

2. A device (1) according to claim 1, characterized in that the first and the second housing parts (6, 9) are arranged to move away from the third housing part (2) before opening in opposite directions, and that the first and the second housing parts (6, 9) placed against each other are arranged, upon closing, to partly move inside the third housing part (2) to reduce the outer dimensions of the device (1).

3. Device according to claim 2 or 3, characterized in that in its closed position, the housing parts (2, 6, 9) constitute a substantially integrated, rigid housing-like structure.

4. A device (1) according to any of the claims 1 to 3, characterized in that it comprises first electronic display means (81, 82) arranged on the inner wall (62, 92) of the first and/or second housing part (6, 9), and also second electronic display means (11) arranged in the third housing part (2), and further a set of electronic keys (3, 4, 5) arranged in the third housing part (2), which keys are arranged to control the functions of the device (1) and the information displayed on the display (11, 81, 82) at the same time when the device is held at the third housing part (2).

5. A device (1) according to claim 4, characterized in that the first display means (81, 82) comprise a uniform, foldable electronic display (8) placed on the inner walls (62, 92) of the first and second housing parts (6, 9) and arranged for displaying information, texts and images in at least two different orientations for a vertical and a horizontal position of the device (1).